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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KI-HYUB SUNG

Appeal 2007-1495
Application 09/904,665
Technology Center 2800

Decided: February 21, 2008

Before JOHN C. MARTIN, HOWARD B. BLANKENSHIP, and
JOHN A. JEFFERY, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals from the Examiner's final rejection of claims 3, 5-7, 10, 15-17, and 20-32. We have jurisdiction under 35 U.S.C. §§ 6(b), 134(a).

We affirm.

Appellant's invention relates to a display apparatus comprising an LCD panel, with structure to facilitate assembling and disassembling of the front cover and the rear cover. (*See Abstract.*)

Claim 21 is representative:

21. A display apparatus, comprising:

a panel bearing a screen disposed to display varying visual images;

a panel support holding the panel;

a bezel framing a front periphery of the panel;

a rear cover removably mating with said bezel while encasing said panel held by said panel support;

at least one rib formed to project from a peripheral surface of a first one of the bezel and the rear cover; and

at least one deformable coupling bearing a groove, extending from an inner surface of a different one of the bezel and the rear cover, oriented to embrace a correspond [sic] rib during said mating, wherein the rib is inserted in the groove.

The Examiner relies on the following references as evidence of unpatentability:

Nakamura	5,768,095	Jun. 16, 1998
Sasai	6,426,803 B1	Jul. 30, 2002
Lee	6,587,166 B1	Jul. 1, 2003

Claims 21, 25, and 29 are independent. Claims 8, 9, 18, and 19 are objected to as depending from a rejected claim. Claims 1, 2, 4, and 11-14

have been canceled. The Examiner sets forth four grounds of rejection against the remaining claims:

I. Claims 5, 6, 21, 24, 25, 28, 29, and 32 stand rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura.

II. Claims 15, 16, 22, 23, 26, 27, 30, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura.

III. Claims 7 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura and Lee.

IV. Claims 3, 10, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakamura and Sasai.

Claims 21, 25, and 29

The independent claims are rejected under 35 U.S.C. § 102(b) over Nakamura. Nakamura is directed to a portable computer having a rear cover 51 (Figs. 3A, 3B) that is removable from front bezel 53. Nakamura col. 6, l. 60 - col. 7, l. 6. The Examiner reads (representative) claim 21 on Nakamura as set forth at pages 3 and 4 of the Answer, with amplification of the findings at pages 7 through 9.

First, Appellant argues that 57b', as shown in Figures 10A and 10B of Nakamura (and page 8 of the Answer) is clearly not a "rib." According to Appellant, a "rib" is defined as "something resembling a rib in form, position or use, as a supporting or strengthening part." (App. Br. 10.)¹

¹ We refer to Appellant's substitute (filed November 22, 2006) for the Appeal Brief filed November 14, 2005.

Appellant does not, however, cite to any authority for the offered definition. Nor does Appellant cite to any particular portion of the instant Specification for a clear definition of “rib.”

In any event, Appellant’s argument as to why 57b’ is not a “rib” is that Figures 10A and 10B of Nakamura are cross-sectional views of the front bezel 53. Appellant’s definition, however, does not preclude the form of a “rib” being in cross-section. As such, the argument does not show error in the Examiner’s finding with respect to the “rib” of Nakamura. Moreover, the “rib” in Nakamura operates as a supporting or strengthening part of bezel 53, as it supports the bezel against rear cover 51. *See* Nakamura Fig. 10A.

Appellant further argues that portion 57b’ does not project “from a peripheral surface of a first one of the bezel and the rear cover” as required by claim 21. (App. Br. 10-11.) As shown in Figure 10A of Nakamura, however, rib 57b’ projects at least from the peripheral (superior) surface of front bezel 53.

Finally, with respect to claim 21, Appellant submits that Nakamura lacks at least one deformable coupling bearing a groove, extending from an inner surface of the rear cover, oriented to embrace a corresponding rib during mating, wherein the rib is inserted in the groove. The Examiner reads the “deformable coupling” on Nakamura’s latch 57b (Figs. 4, 10A) and the “groove” on the portion of rear cover 51 that is recessed with respect to latch 57b (Fig. 10A), which meets with part (rib) 57b’.

Appellant argues that in Nakamura, latch 57b is formed at the top of the side wall, and thus does not extend from an inner surface of the rear

cover. (App. Br. 12.) However, as shown in Figure 10B of Nakamura, latch 57b is integrally formed with the wall of rear cover 51. Claim 21 does not limit the extent of the “deformable coupling” that bears a groove. As Appellant’s representative acknowledged at the oral hearing,² the wall of rear cover 51 moves when front bezel 53 is placed into the rear cover; see representative force “R” in Figure 10A of Nakamura. The wall portion of rear cover 51 (with integrally formed latch 57b) meets all the requirements of the “deformable coupling” of claim 21, including the bearing of the groove into which rib 57b’ fits. The wall of rear cover 51 extends (upwardly) from an inner surface of the rear cover, as shown in Figure 10A of the reference.

We have considered all of Appellant’s arguments, but we are not persuaded of error in the Examiner’s finding of anticipation with respect to claims 21, 25, and 29. We sustain the rejection.

Claims 5, 6, 24, 28, and 32

Representative claim 5 calls for the display apparatus of claim 21 further comprising at least a pair of stops protruding from a rear surface of the bezel to engage the panel support and prevent the panel support from moving across a plane of the panel. The Examiner reads the “pair of stops” on projections in the drawings of Nakamura that have no associated reference numerals, represented by the projection to the right of back member 61 (Fig. 7A) that extends upward from front bezel 53; see also the

² October 24, 2007.

inverted view in Figure 10A, with the projection extending downward from front bezel 53, to the right of back member 61.

Appellant argues that Nakamura discloses that front bezel 53 and back member 61 are “integrally formed (i.e., inseparable).” Nakamura col. 7, ll. 49-52. According to Appellant, because the front bezel and back member (or panel support) are “integrally formed,” panel support 61 will not move -- as such, there are no stops necessary to prevent the panel support from moving across a plane of the panel. (App. Br. 13.)

We agree with the Examiner, however, that the artisan would not understand Nakamura’s disclosure to mean that front bezel 53 and back member 61 are formed from a single piece of material. As shown, for example, in Figure 10A, front bezel 53 and back member 61 are formed of two separate pieces; compare the wall and latch 57b of rear cover 51, formed from a single piece of material. The best interpretation of Nakamura’s text at column 7 is that the front bezel 53 and the back member 61 are “inseparable” once the two are assembled into an effectively one-piece structure, as compared to the separability of back member 61 and front bezel 53 from rear cover 51 (Fig. 10B).

We refer to the Examiner’s reasonable findings (Ans. 11) as to why the “stops” of Nakamura are deemed to meet the claimed functions of engaging the panel support and preventing the panel support from moving across a plane of the panel. In addition, we note that instant claim 5 does not place a time or place limitation on the “stop” functions. Although the stops shown in Nakamura are not fully described, one skilled in the art would

reasonably assume that the stops meet the functions of claim 5 at least during assembly of the two pieces into an integral structure. Again, when the entirety of the reference is considered, we disagree with Appellant's assessment that the pieces are integrally molded, rather than assembled as a one-piece structure.

As we are not persuaded of error in the finding of anticipation, we sustain the Examiner's rejection of claims 5, 6, 24, 28, and 32.

Claim 22

Claim 22 further limits claim 21 in requiring a rib at each corner portion of the rear cover and a corresponding coupling at each corner portion of the bezel. The Examiner rejects the claim under 35 U.S.C. § 103(a) as being unpatentable over Nakamura. Nakamura describes a rib and corresponding coupling on each side of the bezel, as depicted in Figure 8 (i.e., rib 57b' corresponding to latch 57b integral with wall 51). The claim does not require that one structure or another be borne by the rear cover or the bezel, but only that the structures are "at" each corner of the respective rear cover or bezel. The dispositive question is, therefore, would it have been obvious to replace, or add to, the two sets of mating structures with four sets of mating structures arranged at the corners of front bezel 53 and rear cover 51.

Appellant argues that such modification would destroy the intended purpose of Nakamura's device, in that the front and rear portions could not be easily separated. According to Appellant, the side walls of the rear lid

portion would be easily deformable along a central portion of the side wall, but not near the four corners. Appellant also contends that the claim recites that the ribs and couplings are “at,” not “near,” each corner portion. (App. Br. 15.)

To be nonobvious, an improvement must be “more than the predictable use of prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1740 (2007). “[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR*, 127 S. Ct. at 1740 (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)).

Here, having four sets of corresponding structures rather than, or in addition to, two sets would represent no more than the predictable use of prior art elements according to their established functions. Four sets of corresponding structures would perform the same function as two sets; i.e., two, four, or six sets would hold together the front bezel and rear cover in the Nakamura device, yet allow separation of the bezel and cover.

We see no reason why a structure having, for example, four rather than two sets of couplings and ribs would result in the bezels and rear cover not being easily separated, when designed by a skilled artisan. In any event, Appellant has not provided any evidence in support of the theory that having corresponding structures at each corner of the Nakamura device would result in “extremely difficult” separation of the parts. Further, we note that claim

22 does not require that a rib and corresponding coupling be precisely “at” the corner of the bezel and rear cover, but indeed need only be “near” an actual corner. As shown, for example, in Specification Figure 3, “rib” 31 and “coupling” 18 are not at precise corners of front cover 12 or rear cover 27. “At” the corners necessarily includes regions “near” the precise corners.

We are thus not persuaded of error in the rejection of claim 22, and sustain the rejection.

Claims 7 and 17

Representative claim 7 recites that a hook is formed at a leading edge of each stop for engaging an edge of the panel support. The Examiner finds that Nakamura discloses the invention except for the claimed hook, turning to Lee for the “hook” teaching. (Ans. 6.)

Appellant argues there is no motivation to look to Lee for a teaching of how to prevent a panel support from moving across the plane of a panel, because panel support 61 in Nakamura is “integrally formed” with front bezel 53 and incapable of moving across a panel bearing screen 52. (App. Br. 17.)

We disagree with the premise of Appellant’s argument because, as we have found in our review of the rejection of claim 5, Nakamura’s description of the structures as “integrally formed” does not mean that the structures cannot, at some point, be moved one with respect to another (i.e., they are not molded from a single piece of material).

We therefore are not persuaded of error in the rejection of claim 7.
We sustain the rejection of claims 7 and 17.

Remainder of the claims

Appellant appears to submit new arguments with respect to the rejection of claims 3, 10, and 20 in the Reply Brief, contending that the rejection of the claims under 35 U.S.C. § 103(a) over Nakamura and Sasai in the Answer is “considered to be a new ground of rejection” (Reply Br. 21.)

Appellant could have filed a petition to the Technology Center contesting the improper “new ground of rejection,” if Appellant believed that the Examiner committed procedural error.³ *See Manual of Patent Examining Procedure* § 1207.03, Heading IV (8th ed., Rev. 5, Aug. 2006) (“Any allegation that an examiner’s answer contains a new ground of rejection not identified as such is waived if not timely raised (i.e., by filing the petition within two months of the answer) by way of a petition under 37 CFR 1.181(a).”).

On this record, Appellant’s arguments in the Reply Brief in response to the rejection of claims 3, 10, and 20 are untimely and thus have not been considered, in that the time to respond to the rejection was at the filing of the

³ As the Examiner correctly notes (Ans. 13), Appellant was notified in the Advisory Action (mailed Jul. 29, 2005, prior to the filing of the Appeal Brief) that the claims were rejected over “Nakamura” and Sasai rather than “Lee” and Sasai. Moreover, the base claims (21 and 25) in the Final Rejection were rejected over Nakamura rather than Lee.

Appeal Brief. We would then have had the benefit of the Examiner's response to the new arguments in the Reply Brief. We summarily sustain the rejection of claims 3, 10, and 20 under 35 U.S.C. § 103(a) over Nakamura and Sasai, absent a timely response to the rejection from Appellant.

To the extent that claims were separately argued in the Appeal Brief, we have considered representative claims in the foregoing sections. Because none of the representative claims have been demonstrated to be rejected in error, the claims not separately argued fall with the representative claims. *See* 37 C.F.R. § 41.37(c)(1)(vii).

CONCLUSION

The Examiner's rejection of claims 3, 5-7, 10, 15-17, and 20-32 under 35 U.S.C. § 102(b) or 103(a) over the applied prior art is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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Appeal 2007-1495
Application 09/904,665

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